New Things Not Found in Any Books

How MOTION PICTURES Make You See Better

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EVERYBODY goes to the "movies." Not only are moving picture theatres cheap, but the performances are as good if not better than you see in the two-dollar houses. You have the pleasure, the music, the comfort, the entertainment and the instruction in a moving picture theatre to a greater certainty than in many so-called "legitimate houses," and at far less expense.

The other day I saw James K. Hackett and a Frohman company in a four-reel photo-play for five cents. You may see "Les Miserables," "Hamlet," and a thousand other instructive plays intermingled with zoology, trips to foreign lands, humor and the like, in a motion picture playhouse. These motion picture plays are better acted and in every way more satisfying than a great many theatrical productions for which you would have to pay one or two dollars a seat.

What harm is there, then, in visiting the "movies"? Are the eyes injured? Is the health of the patrons destroyed? Are the morals of the young corrupted by them?

The answer to all of these queries is an emphatic No! Just as the old-age playhouse gradually eliminated all taint of vice from its performances; just as the editors of magazines have come to understand that the reading public does not relish even a small dose of the wicked, so the photo-play producers have learned that their public will have none of the suggestive, the vicious, or the unpleasant.

Militant prudes and belligerent moralists who read vice into tea-drinking, and whose voices are for war against any pleasures whatsoever; who spit forth their crusading indignation against moderate tobacco smoking, Sunday walks, the stately minuet and the graceful Boston waltz, have already recognized the trend to censor or censure it.

But certain amateur physiologists and opticians continue to attack this form of entertainment and instruction. In their ignorance they declare that defective vision, styes, granulated eyelids, eyestrain, pinkeye, inflamed lids, crossed eyes and other troubles may each and all develop from attendance at the moving pictures.

Science Discovers That PHOTOPLAYS Are a VALUABLE TONIC for TIRED EYES and Make Their SIGHT MORE ACUTE

Dr. Herbert Harlan, Surgeon-General of Maryland, perhaps the best ophthalmologist in the South, and the envoy sent by the Government to study the dreadful eye malady tracoma in the wilds of West Virginia, says these charges are all nonsense. Dr. Harlan, with whom I feel upon this matter in hearty concord, asserts that the hour or so spent each day in watching the moving picture shows can result in no harm to the eyes.

In fact, I go even farther and assert that two hours a day in the dark auditorium of a picture playhouse, watching the moving films, is actually a valuable tonic to tired eyes.

Experiments by Professor Knight Dunlap in the psychological laboratories of Johns Hopkins University have shown that even the slight flicker which occasionally appears on motion pictures tones up the eyesight and makes it more acute.

It is unwise, perhaps, for some persons to sew, read or attempt to use their eyes at close range on a moving train, motor car, fast boat, or aeroplane. The flickering lights and shadows from this vibration are liable to do harm to your retina. Why? Because the peephole, muscles and lens of your eyes must be constantly changing focus.

This is not the case with moving pictures. At the "movies" the spectator sits from twelve to several hundred feet away from the screen upon which the motion photographs are thrown.

At that distance the focus of the eye changes but little, no matter how much flicker there may be. In fact, a little flicker is beneficial, because it keeps the eye muscles from becoming sluggish, worn out and unadaptable to change.

One scholar maintains that the Germans have become better observers than other nations, and were even ahead of Americans until a short time ago, because the motion picture theatres swarmed in all the Teutonic cities five or six years before they spread over the United States.

Undoubtedly children, and adults as well, have become more observant and better educated in many respects since motion pictures have acquired such a vogue. Recent psychological tests made upon children immediately after leaving a moving picture exhibition prove that they distinguish colors more acutely, recognize form and shape more sharply, and remember figures, sizes and other visual differences better than they did before they went in to see the pictures. They surpassed in all the tests children who had not visited the "movies," but who were, nevertheless, subjected to the same kind of excitement by witnessing a melodrama performed by actual flesh-and-blood actors.

Instances of weak eyes, astigmatism, near-sightedness, granulated eyelids and other troubles of the optical apparatus, commonly attributed by careless observers to motion photographs, are found upon fair and thorough investigation to be due to entirely different causes.

Twitching of the eyelids is erroneously blamed upon visits to the "movies." I was recently required, as the chairman of the scientific research committee of a national organization, to investigate and run down the cause of this trouble. In a large American city, where there are several hundred moving picture theatres and half as many eye specialists, it was soon made clear that not one true example of eye-twitching could be blamed upon motion pictures.

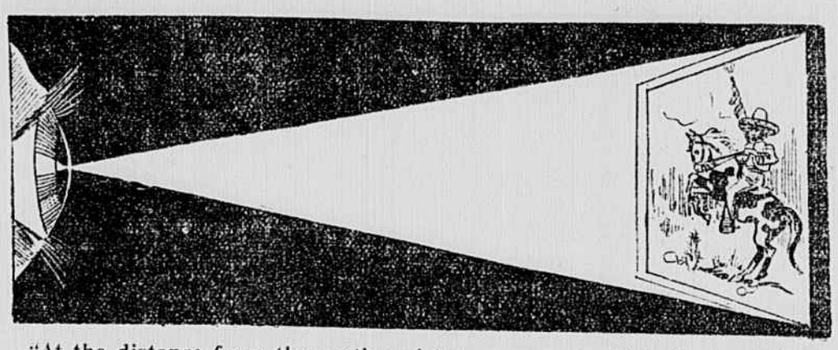
Many of these cases were due only to the need of eye-glasses. Others were a result of nervous defects with which the twitching was associated.

Painful eyes, swollen eyes, reddened eyeballs, watery eyes and styes are often nature's roadside signposts which indicate that the eye specialist should be called in to make visual tests. Spectacles and eye-glasses will frequently be found to correct the iritations.

One man, who prefers the "movies" to grand opera, came to me and asked if "dark spots, which are always dancing before the eyes," were not due to his fondness for the photo-plays. He was given to understand that such spots are a sign of many different internal disorders—blood deficiencies, excessive pumping by the heart, disturbances of the brain and spinal marrow, and the accumulation of microbic poisons in the lymph stream.

There is, then, no danger to the eyes from frequenting moving picture theatres other than is liable to be encountered in any theatre, railroad train, church, park or other public gathering place. Contagions are, of course, picked up by the eyes at moving picture performances, as well as in school or church. But these are by no means common and, with the protective regulations now enforced by the building inspectors in most cities, the ventilation arrangements and hygiene of the picture playhouses are becoming superior to those of schools, churches and other public gathering places.

Finally, it may be said that if the motion picture habit has done nothing else than remind people of their eye troubles and send them post-haste to an oculist, it has acomplished an incalculable amount of good for the human eye.



"At the distance from the motion picture screen at which the spectator usually sits the eye's focus changes but little, no matter how much flicker there is to the pictures."

Is It Really a MISFORTUNE TO HAVE BLUE EYES?

TWO English physicians have recently been trying to ascertain what relation, if any, exists between disease and the color of the eyes. They were led more by accident than design to the observation that many persons, particularly children, ill with scarletina, diphtheria, septic sore throat, tuberculosis and pernicious anaemia, suffer more and succumb more easily to the ravages of these diseases if their eyes are light blue or gray than if their eyes are black or brown.

Statistics collected at several English hospitals and published by these physicians in a recent issue of the Lancet show that whereas children with scarletina who are dark-eyed rarely die or suffer serious complications, nearly ten per cent of those with light-colored eyes die of this dread ailment.

They found even a worse state of affairs in the case of diphtheria. Fully fourteen per cent of children with light blue, hazel and light gray eyes went to an untimely death from diphtheria despite the correct use of the best treatment. On the other hand, less than two per cent of the black and brown eyed patients succumbed to the disease.

Septic sore throat, tuberculosis, tonsilitis, acute rheumatic fever and many other diseases all proved more dangerous to patients whose irises are light colored.

In what colors are you most interested? Why do children and savages like to play with colored objects?

These questions come home to everybody and are closely associated with our mental growth, health, temperament and education.

W. C. Reavis, a St. Louis educator, recently undertook a research upon the effects of red, green, blue, yellow, pink, orange and other hues upon many individuals, particularly school children.

One of the tests he arranged to discover whether or no colors give delightful sensations was to prepare colored squares of paper of the different shades of the spectrum. These were given to the subjects to mount according to their preference.

Young children in the first grammar grades and below preferred red to the other colors, with blue as a second choice. Older youths inclined to prefer blue to red.

Then the experimenter gave the children outlines of birds and told them to fill them in with whatever they pleased.

In every drawing made by children of the fourth and fifth grades the heads of the woodpeckers were colored red and those of the blue jays blue. On the other hand, still younger children selected bright red oftener than anything else for both birds.

There was a marked decrease in the use of blue by both the very old and the very young. The older ones left blue out almost entirely, just as the youngest children did, and used red lavishly.

Mr. Reavis draws from his investigation the conclusion that children are most interested by the bright colors such as red and blue. The majority of persons are, he believes, more interested in the sensations derived from color than in any thing associated with the colors themselves.

Just How a FISH GETS AHEAD

WHEN a fish is swimming just how does he manage to move ahead? Does the water allow itself to be shoved out of the way in front and then flow in behind the fish as he moves along? If it does, where does it go to in the meantime? The fish certainly cannot lift the whole ocean above his head, and water itself is practically incompressible. Certainly a fish cannot compress it any with a mere flap of its tail.

All we have to go on is the actual fact that the fish "does move." There is water all around him, above and below him, there being not the tiniest bit of space there for him to project himself in. At every point he is met by a solid head of water.

Now, of course, we move about in the air, but then we do not swim in it, and then air is compressible. Also, we have something to hold on to. It is easy enough to see that the fish can move because the pressure behind him is just as much as that before, and so any little added pressure that he may give will be sufficient to move himself forward. Also, we know that he can get a grip momentarily on the water with his tail and fins by a quick motion on account of the inertia of the water.

The only question that we must decide is whether the water ahead of him opens before the water behind flows in or whether the two actions take place simultaneously. As far as appearances go, they seem to take place simultaneously. As far as theory goes, the water at the head must open first or the fish certainly could not move. The pressure there causes the water behind to fill up and pressure is carried in a wave which must have a certain velocity in a fluid other than a perfect one—and water is not a perfect fluid.

The solution to the whole question is, of course, the motion of the tail. Its flap causes a current of water to sweep down by the fish from head to tail—or would cause it if the fish remained stationary. But the pressure of the current causes the body to move forward. However you look at it, the way a fish gets from place to place is a very queer proposition.

YOU MIGHT TRY...

When You Serve Fruit.

LEMON juice sprinkled over fruit sliced for dessert or used in a salad will prevent its turning dark.

For Unpleasant Odors.

BURNT coffee will free the house from cooking odors. So will a smouldering piece of string. A handful of lavender flowers in a bowl with lemon or orange peel and covered with boiling water imparts a gentle fragrance to an entire apartment.

To Clean Furniture.

IF your white enamel furniture becomes soiled or discolored it may be quickly and satisfactorily cleaned and restored thus: Melt one tablespoonful of bicarbonate of soda in one quart of boiling water; when cool, wash the furniture with the solution, using an old flannel cloth for the purpose.

Repairing Chair Seats.

WHEN reed or cane chair seats sag wash them on both sides with warm soapsuds. Make the under side quite wet; dry in the air and sun.

For Rust Stains.

LEMON juice and salt will remove rust stains if rubbed on them before putting in water.

KEEP YOUR TEETH SOUND and Have FEWER DOCTOR'S BILLS

By William Brady, M. D.

A SOUND tooth is better than a gold crown. It is cheaper, lasts longer and needs less care. Every normal baby is born with a set of sound teeth in his mouth, though he doesn't cut them till grandma gets round to it. If, in spite of decadent civilization, the baby can keep his milk teeth sound he'll never wear a crown when he grows up and becomes a man. If the temporary teeth are kept intact by good common sense oral hygiene, there will be no necessity of keeping the permanent set in a glass of water beside the seidlitz powders every night.

Something like 98 per cent of the enamel of teeth is lime phosphate. Lime and phosphorus are vital elements of blood, muscle, nerve, bone and teeth. Cereals supply these mineral foods in the most assimilable form. There is more than mere commercialism in the pictures the cereal manufacturers print on the back of your magazine; un-denaturized cereals with nature's chemistry included in the carton constitute the ideal food for little animals. We add cereal decoctions to the baby's bottle because we want to build a good, substantial baby.

Most young animals crack nuts with their teeth. It strengthens the teeth and hardens the gums. Children certainly should be allowed to exercise their jaws, too. The more exercise the jaws are given, the less brushing will the teeth require. Herbivorous animals brush their teeth more thoroughly and more regularly than any of us carnivorous animals do, and that's why we have so many dentists. We simply substitute bristles, burrs and sundry chisels for fresh green garden truck.

And then there's sugar. No, grandma, we crave your pardon, but sugar cannot make "worms." It makes rugged, lively children. They naturally crave a generous amount of sugar and should have it. Only give them the most nutritious kind—the kind you used to give us when we were little tots—rich, full-flavored, unbleached brown sugar—and spread it on about a quarter of an inch thick, that is to say, half of the thickness of the butter.

The particular reason for preferring brown sugar to the ordinary anaemic kind is that brown sugar contains something like 200 times more mineral food than white sugar does. And mineral food is so essential to the life and well-being of every mammal that mineral starvation (or feeding animals with ordinary foods from which the mineral matter has been removed) is more quickly fatal than complete starvation.

Owing, I think, to the refined white substitute we use in place of the "staff of life," from one to all four of our third molars, or "wisdom teeth," never erupt. They do raise Cain with our jaws, though, under the interesting name of "impacted molars"—as the X-ray examination of many cases of inveterate facial neuralgia teaches. Dr. Talbot, a Chicago stomatologist, has found by extended series of examinations that one or more third molars are missing from 47 per cent of adults at twenty-five. Give us this day undenaturized bread!

It does "pay" to have the temporary teeth filled or treated by the dentist, just as it pays to keep children away from a case of scarlet fever or measles. Every case of a so-called "children's disease" is a reflection on our sanitary intelligence. And every cavity in a milk tooth cries shame upon our oral hygiene.

Give me a thousand children with sound teeth to care for and limit my practise to the "diseases of childhood," and I can go away on a long fishing trip without ever being missed by my patients. When I find a family with bad teeth I endeavor to treat them with a great deal of respect, for their patronage is sure to be worth while. Fact is, when a doctor wants to see a sound set of temporary teeth he has to hold up some child who isn't a patient at all. Every family doctor should perpetrate this cowardly deed once in a while in order to recognize the oral pathology he so commonly overlooks.

Try SALT to Relieve CATARRH

DOZENS of remedies are said to be cures for catarrh, and many do excellent work in that disease, but every household contains the best known remedy, and it is actually so simple that most persons disregard its merits.

Dissolve a pinch of ordinary table salt in one-fourth of a pint of warm water, and pour a little in the palm of the hand and place the nostrils in it and snuff it up the nose, taking care that some reaches the tissues of the tubes reaching to the mouth.

Repeat several times, and then wait for ten or twelve hours and repeat the treatment. Keep this up for a week or two, and catarrh will disappear.

Strong salt water will cause pain in the head, but weak, warm salt water is perfectly harmless and will cleanse the tissues more effectually than any other remedy.

This treatment is a great breath purifier and will clear up the throat.

A little stronger salt water used as a gargle will relieve sore throat and aid in preventing diphtheria.

Why It's SO EASY to Be DECEIVED ABOUT WEIGHTS

TAKE a sofa pillow in one hand, balance it carefully until you think you have a right sense of its weight. Hold a large glass in the other hand and have some one pour water into it until you think it weighs about as much as the pillow. Then weigh the two and see how far out of the way you are.

Or take a cap in one hand, and put in the other as many coins as you think may be needed to balance it. You will find your judgment far from correct.

Take two stone jars. Fill one with hot water and the other with cold and ask a friend to say which is the heavier of the two. The bottle with hot water will seem twenty-five per cent heavier.

Take three articles weighing the same. Put one on the ground, one on a table and one on a high shelf. Ask a friend to lift them and determine which of the three is the heaviest. He will pick the one on the shelf as the one which weighs the most every time.

The laws of illusion in weight are quite exact, and it is marvellous to see what a large proportion of people will make exactly the same mistake in exactly the same way. Thus the pillow seems lighter than it is because its appearance suggests lightness. Of two similar weights the one that is the larger in size will always seem the lighter. That is why the weight of the cap will be underestimated in the experiment just described.

Any change from normal temperature, either hot or cold, will appear to increase the temperature. A piece of ice the same weight as a glass of water will seem to weigh twice as much.

The extra exertion needed to sustain the weight of an object either above or below our natural reach, seems to make it heavier, and for this reason the weight on the shelf will seem to have the advantage.

Does this show what poor judges we are? Not at all, it only proves our good judgment. It is like the cad case of the college student in a class on optics, who could see through the illusions, so that matters which appeared crooked to the rest of the class, although they were really straight, appeared straight to him. Instead of complimenting him on his discernment, the professor promptly expelled the student from the class on the ground that he was drunk. And he was!

A MERCIFUL WAY TO KILL RATS

SCIENCE is always after rats on account of the deadly diseases they spread. The latest method of exterminating the pests is to kill them by the bushel with common flue gas.

All that is necessary to do is to turn the invisible gas poison into any place where the pests are harbored. In time this new method promises to do away with the torture of rats by the bone-breaking jaws of dogs, the tearing teeth of spring traps or the lingering pains of ratsbane.

M. E. Berkowitz, a chemist, is the originator of this more merciful method of combatting these enemies of mankind. In the case of rats on board a ship, common coke is spread ten or twelve inches deep over the furnace fire. A pipe from the smokestack leads the gas formed in the furnace to a tank of water, where the vapor is washed of soot and other impurities, and is cooled besides. A blower is used to force the gas from the smokestack on through the water and into the fire hose through to which it is carried to every nook and corner of the vessel.

It seems that the only drawback to using this fumigator aboard ships is that men may be asleep in the bunks or overlooked in the stokehold or engine room when the gas is turned on. Berkowitz points out this danger and warns that all sections of the ship be thoroughly searched for human beings before fumigation begins. Another precaution that may be taken is to mix badly smelling gases with the coke gas, so as to rout out any men who may have been overlooked.

After the gas has had time to kill all the rats, fresh air is admitted, and a lighted lantern is put into the apartment to see if the gas has been replaced by atmospheric air. When the lantern burns brightly the place is safe for men to enter.

Animal experimentation comes in handy as a test for gas. Live rats in cages are lowered into the fumigated apartment, and if they are not affected by the gas the place is safe.

A loaded ship may be cleared of all rats by fine gas in about three hours, while an unloaded vessel requires only about half that time.

Mr. Berkowitz says that all rats killed by the gas should be burned, for disease germs may live and thrive in the dead bodies. It is therefore not safe to throw them into the sea, lest they float to and and spread pestilence.

Why It's DANGEROUS TO COUGH WHEN IN LOVE

OF course, it's just as well not to cough at any time, but while your heart is appreciably enlarged by the tender passion of love it is a great mistake to put upon that organ any further strain. Dr. Guthrie, of Tulane University, has been experimenting on the effect coughing produces, and he announces that in a very large number of persons a cough has such a serious effect upon the heart that it makes the organ change its shape. In people with good hearts the proper shape comes back in from five to ten seconds, but where the heart muscle is weak, as much as fifteen minutes elapses before the effect of the cough has passed away.

Unfortunately, Dr. Guthrie omitted to determine from his patients whether they were deeply in love—just comfortably so, or not in love at all. This leaves the question as to the shape a Cupid-skewered heart would take as yet unsettled, but there seems no reason to doubt the gravity of a cough upon an already overstrained organ. Blowing a horn or cornet is just as bad as coughing, and it is urged in consequence that only married men be admitted into brass bands.

A yawn, on the other hand, is beneficial. As yawns are above all things infectious, the lover who has stayed too long hereafter may comfort himself with the thought that his lady-love is thinking more about his health than her sleep when she yawns. It won't be true, of course, but that is no reason why a grain of comfort should be withheld from the poor fellow who is going through the palpitation process.

In these eugenic days it would not be surprising if the up-to-date girl provided herself with a small fluoroscope. With this she could carefully study each suitor's heart muscle to make sure whether he is in earnest or not. Finally, as a supreme test, she will make him cough, and by that cough she will decide his future fate.